

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) A bulk materials pump feeder comprising:

a housing having:

- (a) an inlet,
- (b) an outlet, and
- (c) an inner wall extending from the inlet to the outlet; and

a drive rotor having:

- (a) a hub rotatable about a rotation axis,
- (b) a plurality of drive disks having a periphery and extending away from the hub toward the inner wall of the housing, and
- (c) means disposed on the periphery of the drive disks for sealing the area between the periphery of the drive disks and the inner wall of the housing;

the inner wall of the housing, the drive disks, and the hub defining a materials transfer duct through which material is transferred from the inlet of the housing to the outlet of the housing.

2. (Previously Presented) The bulk materials pump feeder according to claim 1 wherein the distance between the circumferential edges of the drive disks and the inner wall of the housing increases from the inlet of the housing to the outlet of the housing in the direction of rotation of the drive rotor.

3. (Previously Presented) The bulk materials pump feeder according to claim 2 further comprising a materials scraper:

- (a) mounted in the housing,
- (b) extending into the drive rotor between the drive disks, and
- (c) having a flexible tip preventing material handled by the bulk materials pump feeder from either flowing backward to a discharge point proximate

the outlet of the housing or jamming between the drive disks and the materials scraper.

4. (Previously Presented) The bulk materials pump feeder according to claim 1 further comprising a materials scraper:

- (a) mounted in the housing,
- (b) extending into the drive rotor between the drive disks, and
- (c) having a flexible tip preventing material handled by the bulk materials pump feeder from either flowing backward to a discharge point proximate the outlet of the housing or jamming between the drive disks and the materials scraper.

5. (Previously Presented) The bulk materials pump feeder according to claim 1 wherein the sealing means comprises a low-friction brush seal.

6. (Previously Presented) The bulk materials pump feeder according to claim 5 wherein the brush seal is made of pipe cleaner.

7. (Previously Presented) The bulk materials pump feeder according to claim 1 wherein the sealing means is attached to the drive disks using an adhesive.

8. (Previously Presented) The bulk materials pump feeder according to claim 1 wherein the drive disks have a channel formed in their periphery and the sealing means is disposed in the channel.

9. (Previously Presented) The bulk materials pump feeder according to claim 1 wherein the drive disks have textured interior faces.

10. (Cancelled)

11. (Currently Amended) A bulk materials pump feeder comprising:

a housing having:

- (a) an inlet,
- (b) an outlet, and
- (c) an inner wall extending from the inlet to the outlet;

a drive rotor having:

(a) a hub rotatable about a rotation axis, and

(b) a plurality of drive disks having a periphery and extending away from the hub toward the inner wall of the housing, The bulk materials pump feeder according to claim 10 wherein the distance between the circumferential edges of the drive disks and the inner wall of the housing increases from the inlet of the housing to the outlet of the housing in the direction of rotation of the drive rotor; and

a materials scraper:

(a) mounted in the housing,

(b) extending into the drive rotor between the drive disks, and

(c) having a flexible tip preventing material handled by the bulk materials pump feeder from either flowing backward to a discharge point proximate the outlet of the housing or jamming between the drive disks and the materials scraper;

the inner wall of the housing, the drive disks, and the hub defining a materials transfer duct through which material is transferred from the inlet of the housing to the outlet of the housing.

12. (Currently Amended) A bulk materials pump feeder comprising:

a housing having:

(a) an inlet,

(b) an outlet,

(c) an inner wall extending from the inlet to the outlet,

(d) The bulk materials pump feeder according to claim 10 wherein the housing further has a recess in the inner wall; and

a drive rotor having:

(a) a hub rotatable about a rotation axis, and

(b) a plurality of drive disks having a periphery and extending away from the hub toward the inner wall of the housing; and

a materials scraper:

(a) mounted in the recess in the housing.

(b) extending into the drive rotor between the drive disks, and

(c) having a flexible tip preventing material handled by the bulk materials pump feeder from either flowing backward to a discharge point proximate the outlet of the housing or jamming between the drive disks and the materials scraper;

~~-wherein the recess in the inner wall is downstream from the outlet of the housing and upstream from the inlet of the housing relative to the direction of rotation of the drive rotor and the materials scraper is mounted in the recess; and~~

the inner wall of the housing, the drive disks, and the hub defining a materials transfer duct through which material is transferred from the inlet of the housing to the outlet of the housing.

13. (Currently Amended) A bulk materials pump feeder comprising:

a housing having:

(a) an inlet,

(b) an outlet, and

(c) an inner wall extending from the inlet to the outlet;

a drive rotor having:

(a) a hub rotatable about a rotation axis, and

(b) a plurality of drive disks having a periphery and extending away from the hub toward the inner wall of the housing; and

a materials scraper:

(a) mounted in the housing,

(b) extending into the drive rotor between each of the drive disks, and

(c) having ~~The bulk materials pump feeder according to claim 10 wherein the materials scraper also has a~~ plurality of flexible scraping tips between each of the drive disks, preventing material handled by the bulk materials pump feeder from either flowing backward to a discharge point

proximate the outlet of the housing or jamming between the drive disks and the materials scraper;

the inner wall of the housing, the drive disks, and the hub defining a materials transfer duct through which material is transferred from the inlet of the housing to the outlet of the housing.

14. (Currently Amended) A bulk materials pump feeder comprising:

a housing having:

(a) an inlet,

(b) an outlet, and

(c) an inner wall extending from the inlet to the outlet;

a drive rotor having:

(a) a hub rotatable about a rotation axis, and

(b) a plurality of drive disks having a periphery and extending away from the hub toward the inner wall of the housing; and

a materials scraper:

(a) mounted in the housing,

(b) extending into the drive rotor between the drive disks,

(c) having a flexible tip preventing material handled by the bulk materials pump feeder from either flowing backward to a discharge point proximate the outlet of the housing or jamming between the drive disks and the materials scraper, and

(d) The bulk materials pump feeder according to claim 10 wherein the materials scraper also has a continuous scraping surface substantially mirroring the shape of the drive rotor between the drive disks;

the inner wall of the housing, the drive disks, and the hub defining a materials transfer duct through which material is transferred from the inlet of the housing to the outlet of the housing.

15. (Currently Amended) A bulk materials pump feeder comprising:

a housing having:

(a) an inlet,

(b) an outlet, and

(c) an inner wall extending from the inlet to the outlet;

a drive rotor having:

(a) a hub ~~The bulk materials pump feeder according to claim 10~~
~~wherein the hub has~~ having a textured surface and rotatable about a rotation axis, and

(b) a plurality of drive disks having a periphery and extending away
from the hub toward the inner wall of the housing; and

a materials scraper:

(a) mounted in the housing,

(b) extending into the drive rotor between the drive disks, and

(c) having a flexible tip preventing material handled by the bulk
materials pump feeder from either flowing backward to a discharge point
proximate the outlet of the housing or jamming between the drive disks
and the materials scraper;

the inner wall of the housing, the drive disks, and the hub defining a materials transfer duct
through which material is transferred from the inlet of the housing to the outlet of the housing.

16. (Currently Amended) The bulk materials pump feeder according to claim
~~10-11~~ wherein the drive disks have textured interior faces.

17. (Previously Presented) A bulk materials pump feeder comprising:

a housing having:

(a) an inlet,

(b) an outlet, and

(c) an inner wall extending from the inlet to the outlet;

a drive rotor having:

(a) a hub rotatable about a rotation axis,

- (b) a plurality of drive disks having a periphery and extending away from the hub toward the inner wall of the housing, with the distance between the circumferential edges of the drive disks and the inner wall of the housing increasing from the inlet of the housing to the outlet of the housing in the direction of rotation of the drive rotor, and
- (c) a low-friction brush seal disposed on the periphery of the drive disks for sealing the area between the periphery of the drive disks and the inner wall of the housing; and

a materials scraper:

- (a) mounted in the housing,
- (b) extending into the drive rotor between the drive disks, and
- (c) having a flexible tip preventing material handled by the bulk materials pump feeder from either flowing backward to a discharge point proximate the outlet of the housing or jamming between the drive disks and the materials scraper;

the inner wall of the housing, the drive disks, and the hub defining a materials transfer duct through which material is transferred from the inlet of the housing to the outlet of the housing.

18. (Previously Presented) The bulk materials pump feeder according to claim 17 wherein the drive disks have a channel formed in their periphery and the brush seal is disposed in the channel.

19. (Previously Presented) The bulk materials pump feeder according to claim 17 wherein the hub has a textured surface.

20. (Previously Presented) The bulk materials pump feeder according to claim 17 wherein the drive disks have textured interior faces.